

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO

APPLIED CAPITAL, INC.,

Plaintiff,

vs.

THE ADT CORPORATION and ADT LLC,

Defendants.

CIVIL ACTION NO. 1:16-CV-00815

MEMORANDUM AND ORDER

This matter is before the Court on the following motions: plaintiff Applied Capital, Inc.'s ("Applied Capital") motion for a summary judgment in its favor on defendants ADT Corporation's and ADT LLC's (collectively "ADT") defense of invalidity based on anticipation or obviousness, Doc. 181; ADT's motion for a summary judgment of non-infringement, Doc. 188; Applied Capital's motion under *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 590 (1993), to exclude certain testimony of Dr. Stephen B. Heppe, Doc. 183; ADT's *Daubert* motions to exclude testimony of Dr. Gregory J. Gonsalves and Keiko Hikino, Docs. 184 and 186. This is an action for patent infringement that involves security systems, in particular, patents on a system and method for monitoring premises using a graphical floor plan.

I. BACKGROUND

Applied Capital is the assignee and exclusive owner of all rights, title, and interest in patents covering inventions by Rodney Fox, including United States Patent No. 8,378,817 ("the '817 Patent") and United States Patent No. 9,728,082 ("the '082 Patent") (collectively, "the asserted patents"). Doc. 173, Second Amended Complaint at 2; Doc. 173-2, Ex. B, '817 Patent; Doc. 173-3, Ex. C, '082 Patent. The patents, titled

“Premises Monitoring System,” share a disclosure that fully incorporates and claims priority to two provisional applications (Nos. 61/147,948 and 61/228,044) filed with the United States Patent and Trademark Office (“PTO”) in 2009. Doc. 173, Second Amended Complaint at 4. The ’817 Patent issued on February 19, 2013 and the ’082 Patent issued August 8, 2017. The ’817 Patent has one independent method claim (claim 1) and the ’082 Patent has two independent system claims (claims 1, 17). *Id.* Applied Capital asserts infringement of claims 1–3, 6–9, and 11–15 of the ’817 Patent and claims 1–3, 6–9, 11–15, and 17 of ’082 Patent).

In early 2018, the Patent and Trademark Appeals Board (“PTAB”) declined to institute *inter partes* review on a petition filed by ADT challenging the validity of the ’817 Patent claims for obviousness under 35 U.S.C. § 103. Doc. 173, Second Amended complaint at 7. The PTAB also rejected ADT’s request for rehearing on the issue. *Id.* This Court later denied ADT’s motion for summary judgment of patent ineligibility as an abstract idea under 35 U.S.C. § 101. Doc. 145, Memorandum and Order.

The invention of the asserted patents is a system and method for remotely monitoring sensors installed at a premises using an interactive, vector-based graphical notification user interface in which event-tailored graphical information is hierarchically organized around vector-based visual indicators of a device and its status (an event) is superimposed on a floorplan or map of the premises. Applied Capital asserts ADT has infringed its patents by providing, operating, and otherwise using the interactive security and home-automation service known as “ADT Pulse” and the ADT web portal (“Pulse” or the “accused products”).¹ Doc. 1-2, Complaint, Ex. B. In defense, ADT denies it

¹ Three generations of the Pulse service are accused of infringement: (i) a first generation, which was introduced in or about June 2012 and offered through about 2015; (ii) a second generation, which was

infringed the patents, asserts the patents are invalid by reason of anticipation and/or obviousness, and contends that Applied Capital's infringement claims are barred by its own inequitable conduct.

In claim construction proceedings under *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), the parties agreed that no construction of the term "superimposed visual indicators" in the asserted patents was necessary. Doc. 146, Memorandum and Order at 8. Further, they agreed the term "hierarchically organized graphical images" should be construed as "a group of graphical images arranged relative to one another and/or accessible through one another." *Id.* at 8. The Court rejected ADT's construction of the term "vector-based graphical images" as "vector image files," instead construing the term as "images that include one or more vectors," stating that "the express language of the claims encompasses retrieval of vector-based images that are not stored as files." *Id.* at 8-9. With respect to the term "determining one or more communication methods and communication destinations based on the device identifier and the device condition," the Court again rejected ADT's proposed construction that would have required separately determining device and condition with respect to method and destination. *Id.* at 10. The Court found that both the communication methods and communications destinations were required to be determined based on the device identifier and condition, but that the steps did not have to be performed separately. *Id.* at 11. The Court found the remaining disputed claims should be afforded their plain and ordinary meanings. *Id.* at 13-16. Specifically, the Court found that the patent examiner's replacing "and/or" throughout the document with "and" did not

offered in or around 2015 to 2017; and (iii) a third version first offered in or around 2017. See Doc. 173, Second Amended Complaint at 8-9, Doc. 175-1, Answer.

substantively change the meaning of the clauses containing the language. *Id.* at 14. The Court stated that absence of the limiting language “all of” in dependent claim 9 of the ’817 Patent meant that the claim should not be read as requiring the retrieval of all of the information recited in the claim. *Id.*

Dr. Stephen Heppe, D.Sc., is ADT’s invalidity expert. He offers opinions regarding the scope and validity of the ’817 and ’082 Patents. Doc. 182, Excerpts of Opening Expert Report of Dr. Stephen B. Heppe (“Heppe Invalidity Rep’t”) at APP0004-0184; Doc. 185-7, Ex. F, Heppe Invalidity Rep’t at 39-40. Dr. Heppe obtained a Bachelor of Science degree in Electrical Engineering and Computer Science from Princeton University in 1977, a Master of Science degree in Electrical Engineering (specializing in communications) from George Washington University in 1982, and a Doctor of Science in Electrical Engineering (specializing in Communications, with a minor in Operations Research and a minor in Electrophysics) in 1989. Doc. 182, Heppe Invalidity Rep’t, Ex. A., Resume at 6, APP0072. He has worked in the fields of radio communication, computer and network communications, packet radio, and ad hoc packet radio networking and mesh networks since 1977. *Id.* at 3-6, APP0069-0072. Dr. Heppe is also the named inventor on several U.S. patents, and he is familiar with the process and requirements associated with applying for and obtaining a patent from the U.S. PTO. Doc. 182, Heppe Invalidity Rep’t at 4, APP0007; Ex. A., Resume at 7, APP0073.

He considered several prior art references, including United States Patent No. 6,369,695 (“the ’695 Patent”) and its parent, United States Patent No. 6,229,429 (“the ’429 Patent”) (collectively, “Horon”) and United States Patent Application Serial No.

2009/0022362 (“Gagvani”). Doc. 182, Heppe Invalidity Rep’t at 2-28. Dr. Heppe states in his report that “the asserted claims are either anticipated separately by Horon and Gagvani, or rendered obvious by either Horon or combined with other prior art references of record.” *Id.* at 42-43, 46. He also opined that each of the claims of the asserted patents may be invalid based on indefiniteness, but that opinion is not at issue herein. *Id.* at 58.

Dr. Heppe acknowledged that ADT had asserted an inequitable conduct defense and noted that Applied Capital and the inventor, Rodney Fox, were aware of the Horon patents, as well as other prior art references, and failed to disclose them to the PTO. *Id.* at 54-55. He further stated that the Horon patents were material to the question of patentability for the application that matured into the asserted patents. *Id.* at 55. Applied Capital moves to exclude Dr. Heppe’s testimony on inequitable conduct, contending that he is not qualified to testify as to intent to deceive and materiality.²

Dr. Jun Zheng was retained by Applied Capital to offer opinions on certain technical matters in connection with ADT’s motion for summary Judgment on patent ineligibility. Doc. 132-2, Declaration of Jun Zheng, Ph.D., at 2. Dr. Zheng has been a Professor of Computer Science and Engineering at New Mexico Institute of Mining and Technology (“New Mexico Tech”) since 2008 and has been the Associate Chair of the Department of Computer Science and Engineering since 2018. *Id.* at 2-3, Ex. C, Curriculum Vitae. He has a Bachelor of Science degree and a Master of Science degree in Electrical Engineering from Chongqing University in China, a Master of Science - Engineering in Biomedical Engineering from Wright State University, and a Ph.D. in Computer Engineering from the University of Nevada - Las Vegas. *Id.*

² Applied Capital does not challenge Dr. Heppe’s qualifications, methodology, or invalidity opinions.

He later submitted a rebuttal report expressing further opinions on teachings, lack of anticipatory disclosure, nonobviousness, and absence of motivations to combine. Doc. 198-3, Ex. C, Dr. Zheng Rebuttal Report. In that report, he stated that none of the teachings in either the Horon or Gagvani references “explicitly or inherently disclose or make obvious the Fox invention.” *Id.* at 1-2. He also stated the system and features disclosed by Horon are disclosed in other art submitted to the PTO during the prosecution of the asserted patents. Doc. 185-10, Rebuttal Expert Report at 2. Dr. Zheng also opined that the accused product, Pulse, infringes the asserted patents based on his review of the source codes. Doc. 189-3, Ex. B, Infringement Expert Report of Jun Zheng, Ph.D. at 9. Further, he stated that his opinions on infringement applied to all three generations of Pulse. *Id.*

Dr. Gregory J. Gonsalves was retained by Applied Capital as an expert to provide opinions on the inequitable conduct allegations made by ADT, specifically, to offer a rebuttal to the statements of Dr. Stephen Heppe on that subject. Doc. 185-8, Rebuttal Expert Report of Gregory Gonsalves, Ph.D. Dr. Gonsalves is a patent attorney who has represented clients in more than 225 *inter partes* reviews. He expressed the opinion that ADT “failed to prove that inequitable conduct was committed during the prosecution of the patent applications” for the asserted patents and stated that the allegedly wrongfully withheld prior art references, including Horon, “are cumulative and not more material to patentability than certain prior art that was submitted to the U.S. PTO during the prosecution of the Fox patent applications.” *Id.* at 3-4. He states, based on his review of relevant documents, that “neither the employees of Applied Capital nor any of its patent attorneys exhibited an intent to deceive the U.S. PTO by

not disclosing the Horon patents.” *Id.* at 15. Further, he stated that Applied Capital’s attorney at the time “exercised his independent professional judgment in determining that the Horon patents were not material to patentability of the Fox patent applications.” *Id.* at 17. ADT challenges his qualifications and moves to exclude his testimony as speculative and improper.

Keiko Hinkino is Applied Capital’s damages expert. Doc. 215-2, Keiko Hikino Expert Report. She was retained to testify as to the economic damages to Applied Capital caused by ADT’s alleged infringement of the asserted patents. *Id.* at 4. She has an LLB in Political Science from Keio University in Tokyo, Japan, and an MBA from the University of Texas at Austin. *Id.* She has been a consultant specializing in financial analysis, economic damages, and valuation analyses for more than twenty years. *Id.* Ms. Hikino is currently a Senior Director at Intellectual Property Market Advisory Partners, LLC and also works for Magee & Magee. *Id.* Both companies assist in calculating economic damages in patent infringement litigation. *Id.* Hikino has been involved in over 100 commercial litigation cases as a consultant on damages. *Id.*

She performed an analysis under *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) *modified sub nom. Georgia-Pac. Corp. v. U.S. Plywood-Champion Papers, Inc.*, 446 F.2d 295 (2d Cir. 1971), to determine a reasonable royalty, assuming the patents were found valid and infringed. *Id.* at 12-25. She based her opinion, in part, on the parties relative bargaining strength as well as other factors normally prudent businessmen would take into consideration in negotiating a hypothetical license. *Id.* at 12. She reviewed pricing negotiations between ADT and its vendor, iControl, to infer the value of the accused Home View feature. *Id.* at 12-15.

She also considered the apportionment between the patented contribution and non-patented elements, as well as the other *Georgia Pacific* factors to ensure the conclusion represented a reasonable royalty rate. *Id.* at 17-25. ADT moves to exclude her testimony, contending that she improperly considered licensing offers that were not accepted.

II. LAW

A. Standards of Review

1. Summary Judgment Standards

Summary judgment is proper where materials in the record establish “there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” [Fed. R. Civ. P. 56\(a\)](#). Material facts are those that could affect the outcome of the proceeding, and a dispute about a material fact is genuine “if the evidence is such that a reasonable jury could return a verdict for the non-moving party.” [Anderson v. Liberty Lobby, Inc.](#), 477 U.S. 242, 248 (1986). The moving party has the initial burden of showing there is an absence of evidence to support the nonmoving party’s case. [Bacchus Indus. Inc. v. Arvin Indus., Inc.](#), 939 F.2d 887, 891 (10th Cir. 1991); see [Celotex Corp. v. Catrett](#), 477 U.S. 317, 323 (1986). Where the movant has made a *prima facie* showing, the opposing party cannot “rest upon his pleadings; the party must set forth specific facts showing there is a genuine issue for trial.” [Abercrombie v. City of Catoosa](#), 896 F.2d 1228, 1230 (10th Cir. 1990); see also [Anderson](#), 477 U.S. at 250 (stating that to survive a motion for summary judgment, an opposing party must show that there are genuine issues of fact that can only be

resolved by the finder of fact because they could reasonably be resolved in either party's favor).

2. Expert Testimony

Federal Rule of Evidence Rule 702, which allows for the admission of expert opinions, provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

(a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

(b) the testimony is based on sufficient facts or data;

(c) the testimony is the product of reliable principles and methods; and

(d) the expert has reliably applied the principles and methods to the facts of the case.

[Fed. R. Evid. 702](#); see [Daubert](#), 509 U.S. at 592-93. “An expert is qualified if he or she ‘possess[es] such skill, experience or knowledge in that particular field as to make it appear that his [or her] opinion would rest on substantial foundation and would tend to aid the trier of fact in his search for truth.’” [LifeWise Master Funding v. Telebank](#), 374 F.3d 917, 928 (10th Cir. 2004)) (quoting [Graham v. Wyeth Labs.](#), 906 F.2d 1399, 1408 (10th Cir. 1990)). An expert may testify “if the proposed testimony lies within the reasonable confines of his or her subject area.” [Ralston v. Smith & Nephew Richards, Inc.](#), 275 F.3d 965, 970 (10th Cir. 2001).

When faced with a proffer of expert testimony, trial judges are charged with the “gatekeeping” responsibility of ensuring that all expert evidence admitted is both relevant and reliable. [Daubert](#), 509 U.S. 592-93; [Sanderson v. Wyo. Highway Patrol](#),

976 F.3d 1164, 1172 (10th Cir. 2020). The proponent of expert testimony has the burden of establishing by a preponderance of the evidence that the pertinent admissibility requirements are met. See *United States v. Gomez*, 67 F.3d 1515, 1526 (10th Cir. 1995). In patent cases, the admissibility of expert testimony under Rule 702 is governed by the law of the regional circuit. *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1390-91 (Fed. Cir. 2003).

“The relevance inquiry encompasses Rule 702’s requirement that the evidence ‘[help] the trier of fact to understand the evidence or to determine a fact in issue.’” *Sanderson*, 976 F.3d at 1172 (quoting *Daubert*, 509 U.S. at 591). Relevance is also referred to as helpfulness. *Sanderson*, 976 F.3d at 1172. The reliability prong requires the court to determine whether the expert’s opinions are supported by sound reasoning and methodology. *Id.* An expert must apply “the principles and methods reliably to the case” in order for his or her opinion to be admitted. *United States v. Nacchio*, 555 F.3d 1234, 1241 (10th Cir. 2009) (citations omitted).

An expert may not “state legal conclusions drawn by applying the law to the facts.” See e.g., *Pioneer Centres Holding Co. Emp. Stock Ownership Plan and Tr. v. Alerus Fin., N.A.*, 858 F.3d 1324, 1342 (10th Cir. 2017) (citation omitted). Although testimony on the ultimate factual questions may aid the factfinder in reaching a verdict, testimony that articulates and applies the relevant law may circumvent the factfinder’s “decision-making function by telling it how to decide the case.” *Specht v. Jensen*, 853 F.2d 805, 808 (10th Cir. 1988). “[A]n expert may not go so far as to usurp the exclusive function of the [factfinder] to weigh the evidence and determine credibility.” *United States v. Hill*, 749 F.3d 1250, 1260 (10th Cir. 2014).

Under the Federal Rules of Evidence, courts liberally admit expert testimony. See *Gomez*, 67 F.3d at 1526. To the extent that [a party] challenges the probative value of the evidence, an attack upon the probative sufficiency of evidence relates not to admissibility but to the weight of the evidence and is a matter for the trier of fact to resolve. *United States v. Beasley*, 102 F.3d 1440, 1451 (8th Cir. 1996).

Where the gatekeeper and the factfinder are one and the same—that is, the judge—the need to make such decisions prior to hearing the testimony is lessened. See *United States v. Brown*, 415 F.3d 1257, 1268–69 (11th Cir.2005) (“There is less need for the gatekeeper to keep the gate when the gatekeeper is keeping the gate only for himself”). Where the court has assumed the role of fact-finder in a bench trial, “the better course” is to “hear the testimony, and continue to sustain objections when appropriate.” *Easley v. Anheuser-Busch, Inc.*, 758 F.2d 251, 258 (8th Cir. 1985).

B. Patent Law

1. Invalidity - Anticipation/Obviousness

Issued patents are presumed valid, and defendants must prove invalidity by clear and convincing evidence. 35 U.S.C. § 282; *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95 (2011). “[I]nvalidity by anticipation requires that the four corners of a single, prior art document describe every element of the claimed invention, either expressly or inherently. *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000) Inherency requires that “the limitation at issue necessarily must be present, or the natural result of the combination of elements explicitly disclosed by the prior art.” *Id.*

An alleged prior art reference anticipates a patent claim only where, within the four corners of that document, there is a disclosure describing every element of the claimed invention such that an ordinary artisan could practice the invention without undue experimentation. *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000). Under 35 U.S.C. § 102, the mere disclosure of every “element[] of [a] claim within the four corners of the document” is not enough to prove anticipation. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). Rather, the elements must be “arranged as in the claim.” *Id.* Anticipation under 35 U.S.C. § 102 is a question of fact. See *Spansion, Inc. v. Int’l Trade Comm’n*, 629 F.3d 1331, 1356 (Fed. Cir. 2010).

A claimed invention is unpatentable for obviousness under 35 U.S.C. § 103 “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious” to one of ordinary skill in the relevant art. *Intercontinental Great Brands LLC v. Kellogg N. Am. Co.*, 869 F.3d 1336, 1343–44 (Fed. Cir. 2017) (quoting 35 U.S.C. § 103). Under that provision, a defendant must establish by clear and convincing evidence that “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *Id.* When several prior art references are considered, a patent may not be found invalid as obvious unless the party challenging the validity of the patent has provided evidence showing that: (1) “a skilled artisan would have had reason to combine the teaching of prior art references to achieve the claimed invention,” and (2) “that the skilled artisan would have had a

reasonable expectation of success from doing so.” *PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1193 (Fed. Cir. 2014); see also *In re Stepan Co.*, 868 F.3d at 1346 n.1 (Fed. Cir. 2017) (“Whether a rejection is based on combining disclosures from multiple references, combining multiple embodiments from a single reference, or selecting from large lists of elements in a single reference, there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful.”).

Obviousness is a question of law, which depends on underlying factual determinations. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007); see *Randall Mfg. v. Rea*, 733 F.3d 1355, 1362 (Fed. Cir. 2013). Among the factual determinations are “the scope and content of the prior art, differences between the prior art and the claims at issue, the level of ordinary skill in the pertinent art, and any objective indicia of non-obviousness.” *Randall*, 733 F.3d at 1362. Whether the relevant skilled artisan had a motivation to combine pieces of prior art in the way eventually claimed in the patent at issue is also a fact question. *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1047–48, 1051 (Fed. Cir. 2016) (*en banc*). Once the relevant fact issues are resolved, “[t]he ultimate judgment of obviousness is a legal determination” for the court. *Intercontinental*, 869 F.3d at 1343-44; see *KSR*, 550 U.S. at 427.

2. Infringement

A patent owner must prove infringement by a preponderance of evidence. *Amgen Inc. v. Sandoz Inc.*, 923 F.3d 1023, 1027 (Fed. Cir. 2019). An infringement determination is a two-step analysis. *Terlep v. Brinkmann Corp.*, 418 F.3d 1379, 1381 (Fed. Cir. 2005). First, the court must construe the claims to determine their scope and

meaning. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995). This step, claim construction, is a question of law. *Wright Med. Tech., Inc. v. Osteonics Corp.*, 122 F.3d 1440, 1443 (Fed. Cir. 1997). Second, the claim as properly construed must be compared to the accused product. See *Markman*, 52 F.3d at 976. This second step is a question of fact. *Wright Med. Tech.*, 122 F.3d at 976. “To prove infringement, the patentee must show that the accused device meets each claim limitation, either literally or under the doctrine of equivalents.” *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1273 (Fed. Cir. 2004).

Even though a determination of infringement of the properly construed claims is a question of fact, a “[s]ummary judgment of noninfringement is . . . appropriate where the patent owner’s proof is deficient in meeting an essential part of the legal standard for infringement, because such failures will render all other facts immaterial.” *TechSearch, L.L.C. v. Intel Corp.*, 286 F.3d 1360, 1369 (Fed. Cir. 2002). “[S]pecific claim limitations cannot be ignored as insignificant or immaterial in determining infringement.” *TechSearch*, 286 F.3d at 1373-74 (internal citations omitted).

3. Inequitable Conduct

Inequitable conduct is an equitable defense to patent infringement. *Am. Calcar, Inc. v. Am. Honda Motor Co.*, 768 F.3d 1185, 1188 (Fed. Cir. 2014). “[A]n equitable doctrine ‘hinges on basic fairness.’” *Core Wireless Licensing S.A.R.L. v. Apple Inc.*, 899 F.3d 1356, 1368 (Fed. Cir. 2018) (quoting *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1292 (Fed. Cir. 2011) (*en banc*)). The task of applying an equitable defense is committed to the district court’s discretion. *Id.* at 1369.

Inequitable conduct occurs when a patentee breaches his or her duty of candor, good faith, and honesty in front of the PTO. *Ferring B.V. v. Barr Labs., Inc.*, 437 F.3d 1181, 1186–87 (Fed. Cir. 2006). The Federal Circuit’s inequitable-conduct standards govern unenforceability challenges based on prosecution communications with the PTO. *Gilead Scis., Inc. v. Merck & Co.*, 888 F.3d 1231, 1240 n.3 (Fed. Cir. 2018). The predicate facts must be proven by clear and convincing evidence. *Honeywell Int’l Inc. v. Universal Avionics Sys. Corp.*, 488 F.3d 982, 999 (Fed. Cir. 2007).

To prove inequitable conduct, the accused infringer must provide evidence that the applicant (1) misrepresented or omitted material information, and (2) did so with specific intent to deceive the PTO. *Therasense*, 649 F.3d at 1287. There is no right to a jury, and the trial court has the obligation to resolve the underlying facts of materiality and intent. *Am. Calcar, Inc.*, 651 F.3d at 1333 (Fed. Cir. 2011).

“Under *Therasense*, the materiality required to establish inequitable conduct is, in general, but-for materiality.” *Am. Calcar*, 651 F.3d at 1334; see also *Therasense*, 649 F.3d at 1292 (explaining that because inequitable conduct renders an entire patent unenforceable, the doctrine should only be applied where the patentee’s misconduct resulted in an unfair benefit). When an applicant fails to disclose prior art to the PTO, that prior art is but-for material if the PTO would not have allowed a claim had it been aware of the undisclosed prior art. *Id.* “While deceptive intent can be inferred from indirect and circumstantial evidence, that ‘inference must not only be based on sufficient evidence and be reasonable in light of that evidence, but it must also be the single most reasonable inference able to be drawn from the evidence to meet the clear and convincing standard.’” *Id.* (quoting *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*,

537 F.3d 1357, 1366 (Fed. Cir. 2008)). “In a case involving nondisclosure of information, clear and convincing evidence must show that the applicant made a deliberate decision to withhold a known material reference.” *Therasense*, 649 F.3d at 1289. Intent and materiality are separate requirements. *Id.* at 1290.

However, when the patentee has engaged in affirmative acts of egregious misconduct, such as the filing of an unmistakably false affidavit, the misconduct is material. *Id.* at 1292. “[N]either mere nondisclosure of prior art references to the PTO nor failure to mention prior art references in an affidavit constitutes affirmative egregious misconduct.” *Id.*

4. Damages

The statutory authority for an award of damages in a patent infringement case is 35 U.S.C. § 284, which provides that “the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer.” 35 U.S.C. § 284; see *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 26-27 (Fed. Cir. 2012) (noting that the minimum damages amount allowable under the statute is the reasonable royalty that the patentee would have received in an arms-length bargain). “The two ‘alternative categories of infringement compensation’ under section 284 are ‘the patentee’s lost profits and the reasonable royalty he would have received through arms-length bargaining.’” *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1330 (Fed. Cir. 2015) (quoting *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009)).

The reasonable royalty theory of damages seeks to compensate the patentee not for lost sales caused by the infringement, but for its lost opportunity to obtain a reasonable royalty that the infringer would have been willing to pay if it had been barred from infringing. *Lucent Techs.*, 580 F.3d at 1325. The most common method for determining a reasonable royalty is the hypothetical negotiation approach, which “attempts to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began.” *Id.* at 1324. The fifteen factors set out in *Georgia-Pacific*, 318 F. Supp. at 1120, frame the reasonable royalty analysis. See *Uniloc USA, Inc. v. Microsoft Corp.*, 532 F.3d 1292, 1317 (Fed. Cir. 2011).

Estimating a reasonable royalty is not an exact science, and there may be more than one reliable method for estimating a reasonable royalty. *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1315 (Fed. Cir. 2014), *overruled on other grounds by Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015). Where “the methodology is reasonable and its data or evidence are sufficiently tied to the facts of the case, the gatekeeping role of the court is satisfied, and the inquiry on the correctness of the methodology and of the results produced thereunder belongs to the factfinder.” *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1296 (Fed. Cir. 2015). If the expert testimony on damages fails to tie the theory to the facts of the case, the testimony must be excluded.” *Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prod. Grp., LLC*, 879 F.3d 1332, 1349 (Fed. Cir. 2018).

In attempting to establish a reasonable royalty, the “licenses relied on by the patentee in proving damages [must be] sufficiently comparable to the hypothetical

license at issue in suit.” *Lucent*, 580 F.3d at 1325. However, “any reasonable royalty analysis ‘necessarily involves an element of approximation and uncertainty.’” *Id.* (quoting *Unisplay, S.A. v. Am. Elec. Sign Co.*, 69 F.3d 512, 517 (1995)). Whether licenses are sufficiently comparable generally goes to the weight of the evidence, not its admissibility. *Id.*; see also *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1227 (Fed. Cir. 2014).

III. DISCUSSION

A. *Daubert* Motions

1. Dr. Stephen B. Heppe

Applied Capital moves to exclude Dr. Heppe’s testimony on inequitable conduct. It contends that Dr. Heppe lacks any expertise in patent prosecution practice or procedure, and is therefore not qualified to opine on intent to deceive and materiality. ADT concedes that opinions on intent, testimony about what the patent examiner would have done if presented with the subject prior art, and the legal conclusion on whether inequitable conduct occurred are clearly improper for expert testimony. Defendant argues, however, that Dr. Heppe’s opinion on the Horon references as prior art is properly narrow and he is qualified to testify as to the materiality of those references.

The Court finds that Applied Capital’s motion should be denied, without prejudice to reassertion at trial. ADT concedes that Dr. Heppe will not testify as to intent. The topic of materiality is intertwined to some extent with anticipation and/or obviousness. Dr. Heppe will be allowed to testify to the jury on those topics. The determination of inequitable conduct will be made by the Court. To the extent Dr. Heppe has information that would be helpful to the Court, he may present that information outside the presence

of the jury, at a sidebar, or by way of an offer of proof. If Applied Capital opens the door to testimony that would invade the province of the jury or the Court, ADT will be allowed to rebut that testimony. The experts will not be permitted to testify to opinions outside the scope of expert disclosures.

2. Dr. Gregory Gonsalves

ADT moves to preclude testimony by ADT's expert, Dr. Gonsalves, in its entirety. ADT contends that Dr. Gonsalves's opinion is an improper legal opinion. It also argues that Dr. Gonsalves is not qualified, and that the testimony with respect to materiality is duplicative of the opinions of Applied Capital's validity expert, Dr. Zheng.

The Court agrees with ADT that testimony that invades the province of the factfinder is not appropriate. However, because that issue will be tried to the Court, ADT's arguments have less force.

It appears that some of Dr. Gonsalves's testimony may appropriately be presented to the jury. An explanation of patent rules, procedure, and terminology, testimony about the patents, and evidence related to prosecution history may be relevant, reliable and helpful to the jury. Although that evidence may be tangentially relevant to the issues of materiality and/or intent, Dr. Gonsalves will not be permitted to testify as to his purported conclusions with respect to those topics. Dr. Gonsalves's opinions on intent and materiality go to the issue of inequitable conduct that will be tried to the Court. That evidence is not relevant to the issues under consideration by the jury and is therefore inadmissible. Dr. Gonsalves was not designated to offer opinions on invalidity or infringement, nor does he appear qualified to do so. A cautionary instruction may be in order with respect to any evidence presented to the jury, but the

Court cannot determine the parameters of any such instruction at this time. The parties should approach the bench in advance of any evidence that touches on the inequitable conduct issue.

Any evidence that relates to inequitable conduct should be presented outside the presence of the jury. Dr. Gonsalves may testify as to those issues within his areas of expertise and qualifications that are designed to assist the Court and are reliable, but he may not testify as to determinations reserved for the Court. The testimony will, of course be subject to a showing of proper foundation and reliability. The parties will be permitted to elicit and submit inequitable conduct evidence to the Court, on a proper showing of relevance and foundation, and the Court can sift through issues of admissibility, credibility, and weight of evidence in its findings and conclusions on the equitable issue. Accordingly, ADT's motion will be granted in part and denied in part, as set forth in this order.

C. ADT's Motion to Preclude Expert Testimony of Keiko Hikino

ADT moves to preclude part or all of Hikino's damages testimony. It contends that Hikino's approach is fundamentally flawed, and her opinions and conclusions are inherently unreliable.³ It argues that Hikino's testimony fails to conform to the standards set forth in *Georgia Pacific*. ADT contends Ms. Hikino improperly based her reasonable royalty opinion on a rejected offer, which is not probative of a hypothetical negotiation. Applied Capital responds that, contrary to ADT's assertion, the law does not prohibit using an unaccepted offer as a starting point in a hypothetical negotiation analysis.

³ ADT does not challenge Hikino's qualifications in this motion, but states that it reserves the right to do so at trial.

Applied Capital also argues that Hikino properly considered the remaining *Georgia-Pacific* factors to verify the reasonableness of her conclusions.

The Court finds the defendant's motion to preclude Hikino's testimony should be denied at this time. The Court agrees with Applied Capital that an unaccepted offer can be a starting point for determining a hypothetical negotiation. There will always be some uncertainty in this evaluation because it is hypothetical. Also, the record shows Hikino considered the *Georgia Pacific* factors relevant to the inquiry. The defendants' criticisms go more to the weight than to the admissibility of her testimony. The Court finds ADT's objections to Hikino's testimony are properly the subject of either cross-examination, foundational or relevance objections, or argument.

At this stage of the litigation, it does not appear that Hikino's testimony should be precluded under *Daubert*. Any perceived shortcomings in her analysis and methodology can be addressed on cross-examination. If Hikino does not sufficiently tie her testimony to the facts of the case, the defendant may reassert its objections.

B. Summary Judgment Motions

1. Applied Capital's Motion for a Summary Judgment - No Anticipation

Applied Capital contends that it is entitled to judgment in its favor on ADT's defense of invalidity by reason of either anticipation under [35 U.S.C. § 102](#) or obviousness under [35 U.S.C. § 103](#). Essentially, Applied Capital argues that there is a failure of proof on ADT's invalidity defenses. It seeks a declaration that the asserted claims of the asserted patents are not invalid as anticipated or rendered obvious by either the Horon or Gagvani references. Applied Capital contends ADT has not produced evidence showing that either reference discloses all of the necessary

elements of the asserted claims of the asserted patents.⁴ It argues that ADT cannot prove anticipation without expert testimony that the Horon and Gagvani references disclose all of the requirements set out in Claim 1 of each of the patents. In particular, it argues that neither prior art reference discloses a security system retrieving and dispatching hierarchically organized images; and contends the Gagvani reference does not disclose a security system retrieving and dispatching and dispatching superimposed visual indicators and vector-based graphical images.

In response, ADT first argues that Applied Capital's failure to comply with the local rules is fatal to its motion for summary judgment. The Court will not exalt form over substance in connection with the local rules. The Court can adequately discern Applied Capital's position from the briefing. Moreover, "[a] local rule imposing a requirement of form must not be enforced in a way that causes a party to lose any right because of a nonwillful failure to comply." [Fed. R. Civ. P. 83\(a\)\(2\)](#).

ADT next controverts Applied Capital's argument that the Horon patents do not disclose the required elements, relying on the testimony of its invalidity expert, Dr. Heppe. The Court has reviewed the evidence submitted by the parties in connection with this motion. The record shows that there are competing expert opinions on the issues of anticipation and obviousness. The anticipation and obviousness issues are intertwined, and similar evidence relates to both issues. The Court finds there are genuine issues of fact on the applicability, materiality, and effect of the prior art references on which the defendant relies. Without hearing the testimony in context, the court cannot assess the scope or breadth of the experts' opinions on the two related

⁴ Those are: (1) "superimposed visual indicators," (2) "hierarchically organized images," and (3) "vector-based graphics."

issues. At this stage, the Court cannot state as a matter of law that no jury could find clear and convincing evidence of invalidity. After a full development of the evidence, the matter can be reasserted in motions for judgment during or at the conclusion of the trial.

2. ADT's Motion for a Summary Judgment of Non-Infringement

ADT seeks a judgment in its favor on the issue of non-infringement. It asserts that the undisputed record shows that the accused product, Pulse with Home View,⁵ when it was available, did not function in the way that Applied Capital alleges it did. ADT contends the asserted patents clearly require that the retrieval step comprise the retrieval of images, not character strings, and that Applied Capital has not shown—and cannot show—that ADT Pulse with the Home View feature met every limitation of the asserted claims of the asserted patents. Also, ADT contends that Applied Capital inspected the source code for Pulse Generations 2 and 3 but failed to obtain and inspect the first-generation source code. ADT argues that Applied Capital's claims against the first-generation product assumes that the earlier product operated the same way as later iterations. Again, the Court finds there are genuine issues of material fact on these issues. There are competing expert opinions on infringement. There is evidence in the record that could support a jury's conclusion that all three generations of Pulse infringe the asserted patents. ADT has not shown by a preponderance of evidence that it has not infringed Applied Capital's patent claims as a matter of law. Accordingly, the Court finds ADT's motion should be denied, without prejudice to reassertion at trial.

⁵ ADT states that Home View was a little used, and now defunct feature of Pulse, which allowed subscribers to plot and review devices on a graphical floorplan.

IT IS ORDERED:

1. Plaintiff Applied Capital's motion for summary judgment on invalidity (Doc. 181) is denied;
2. Defendant ADT's motion for a summary judgment of noninfringement (Doc. 188) is denied;
3. Plaintiff Applied Capital's motion to exclude certain testimony of Dr. Stephen B. Heppe (Doc. 183) is denied without prejudice to reassertion;
4. Defendant ADT's motion to exclude testimony of Dr. Gregory J. Gonsalves (Doc. 184) is denied without prejudice to reassertion;
5. Defendant ADT's motion to exclude the testimony of Keiko Hikino (Doc. 186) is denied without prejudice to reassertion.

Dated this 9th day of April 2021.

BY THE COURT:

s/ Joseph F. Bataillon
Senior United States District Judge